

PRINCE NILESHBHAI BUTANI

International Institute of Information Technology, Bangalore

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Education

International Institute of Information Technology, Bangalore

August 2022 – January 2025

Master of Science by Research, Data Science

3.4/4.0

Visvesvaraya Technological University (VTU)

August 2017 – August 2021

Bachelor of Engineering, Aeronautical Engineering

8.49/10

Experience

Accenture Solutions

July 2021 – October 2021

Data Analyst

Bangalore, Karnataka

Analyzed and processed telecom service data for British Telecom at Accenture, identifying key trends and optimizing service delivery. Utilized **SQL, Python, and Tableau** to create actionable insights, contributing to a **15% reduction** in service outages. Worked closely with marketing and customer service teams to translate data insights into strategic initiatives, resulting in a **10% increase** in customer engagement and satisfaction.

Publication

CMA: An End-to-End System for Reverse Engineering Choropleth Map Images |  **August 2024**

- Our work has been accepted for presentation at **SIBGRAPI 2024**, the 37th IEEE International Conference on Graphics, Patterns, and Images, in Brazil. Demonstrated flexible model choice with **ResNet-50 and VGG16**, proved Detectron2's superior performance in state segmentation, validated PaddleOCR's high text recognition accuracy, and confirmed lower error rates for continuous color bar choropleths, ensuring robust system performance evaluation.

Projects

DDoS Attack Identification | *Python, XGBoost, LightGBM, Machine Learning*  **December 2023**

- Developed an ML model to identify and classify DDoS attacks using large dataset, aiming to enhance cybersecurity.
- Performed **data cleaning and reduction**, transforming the dataset from **8.9 GB to 4.08 GB**, and employed multiple ML models including **Logistic Regression, XGBoost, and LightGBM** for attack classification.
- Achieved a classification accuracy of over 90% using LightGBM, with significant improvements in computational efficiency and accuracy, providing valuable insights into the identification of potential DDoS attacks.

End to End Gen AI News Research Tool | *Langchain, OpenAi API, Streamlit*  **June 2024**

- Implemented a system to load and process URLs or text files containing URLs using **LangChain's** UnstructuredURL Loader, enhancing data intake capabilities. Utilized **OpenAI embeddings and FAISS** library to construct advanced embedding vectors, significantly boosting the speed and accuracy of information retrieval.
- Enabled dynamic interaction with **LLMs**, allowing users to input queries and receive precise answers along with source URLs, improving user engagement and data transparency.

Portfolio Optimization | *Python, Numpy, Pandas, SciPy, CVXPY*  **April, 2024**

- Developed a portfolio optimization model using Python to enhance investment strategies. Utilized Python with libraries such as Pandas, NumPy, and SciPy to clean, transform, and analyze financial data, implementing techniques like **mean-variance and Sharpe ratio optimization**.
- Improved portfolio performance by optimizing **asset allocation**, leading to improved financial decision-making and a better understanding of risk-return relationships.

Certifications

JP Morgan & Chase Investment Banking Job Simulation | *DCF Modelling, Client Communication* **August 2024**

- * Conducted strategic analysis and identified potential M&A targets for a client, developed Discounted Cash Flow (DCF) models to assess acquisition targets, accounting for real-time supply chain disruptions and presenting recommendations to senior management through detailed financial charts, company profiles, and valuation models.

Technical Skills

Languages: Python, SQL, LaTeX

Technologies/Frameworks: Pandas, Numpy, Fine tuning, LLMs, PyTorch, Tensorflow, Tableau, MySQL, Matplotlib, Scikit-Learn, Git, AGI STK, CATIA, Ansys

Relevant Coursework

- Visual Recognition
- Machine Learning
- Data Visualization
- Geographical Information System
- Spatial Computing

Leadership/Extracurricular

Placement Committee | *Member*

August 2023 – May 2024

Facilitating the smooth conduction of the On Campus Internship and Placement Drive by handling recruiters and organizing.

NCC Cadet | *Sergeant*

August 2012 – August 2014

Attended camps like Army attachment camp (AAC) and National Integration Camp (NIC) organised by NCC and Army.